

38. (ONCE AMENDED) The optical amplifying method according to claim 37, further comprising determining a difference between an amplification output of the light in said shorter-wavelength band and an amplification output of the light in said longer-wavelength band so that optical powers of the respective wavelength bands at a predetermined point will become approximately identical when wavelength-multiplexed light of the said plurality of wavelength bands travels to the predetermined point, and wherein

said amplifying amplifies said light in the shorter-wavelength band so that it will have optical power that is larger than optical power of amplified light in said longer-wavelength band by said difference.

39. (ONCE AMENDED) A method of amplifying light comprising:
generating a plurality of optical signals having different optical powers;
generating a plurality of WDM optical signals by wavelength-multiplexing said plurality of optical signals on a wavelength band basis;

amplifying a WDM optical signal in a longer-wavelength band among the plurality of WDM optical signals;

amplifying a WDM optical signal in a shorter-wavelength band among said plurality of WDM optical signals so that it will have optical power that is larger than optical power of the amplified WDM optical signal in said longer-wavelength band; and

wavelength-multiplexing said plurality of WDM optical signals.

40. (ONCE AMENDED) The optical amplifying method according to claim 39, further comprising determining a difference between an amplification output of the WDM optical signal in said shorter-wavelength band and an amplification output of the WDM optical signal in said longer-wavelength band so that optical powers of the respective WDM optical signals at a predetermined point will become approximately identical when a wavelength-multiplexed optical signal of the plurality of WDM optical signals travels to the predetermined point, and wherein

said amplifying amplifies the WDM optical signal in said shorter-wavelength band so that it will have optical power that is larger than optical power of amplified light in the longer-wavelength band by said difference.

41. (ONCE AMENDED) A method of inputting light comprising:
making optical power of a WDM optical signal in a shorter-wavelength band larger than